

REMARKS

The Examiner has rejected claims 1 through 5, 7 through 13, 15 through 19, 21 through 27, 29 through 40 and 42 through 44 under 35 U.S.C. §102(b). The Examiner has also rejected claims 45 through 47 under 35 U.S.C. §103(a). In view of the above amendments and the following remarks, the Applicant respectfully requests the Examiner to reconsider the withdrawal of the currently pending rejections.

In addition, the Examiner has objected to the drawing amendment. A set of all drawings as the Examiner has required will be soon submitted in a separate submission since the new drawings need to be ordered.

The Section 102(b) Rejections

The Examiner has rejected claims 1 through 5, 7 through 13, 15 through 19, 21 through 27, 29 through 40 and 42 through 44 under 35 U.S.C. §102(b) as allegedly being anticipated by the Ueta et al reference. The Examiner has pointed out that every element of the above independent claims has been disclosed by a single cited reference. Without agreeing with the Examiner's characterization of the cited reference, the Applicant has further amended to clarify the subject matter limitations of the current invention.

Newly amended independent claims 1 and 29 now each explicitly recite "generating a set of threshold values based upon an intensity level of the inputted image data; determining whether or not a portion of the image data is an outline portion based upon the threshold values to generate an outline characteristic of the outline portion in the image data; selecting a correction coefficient from a set of predetermined correction coefficients based upon a combination of said outline characteristic and said user input value." Similarly, newly amended independent claim 15 now explicitly recites "a threshold unit ... for generating a set of threshold values based upon an intensity level of the inputted image data; a space filter process unit ... for determining at least whether or not a portion of the image data is an outline portion based upon

the threshold values to generate an outline characteristic of the outline portion in the image data; and an intensity correction unit . . . for selecting a correction coefficient from a set of predetermined correction coefficients based upon a combination of the outline characteristic and the user input value.” In other words, the current invention as explicitly recited in newly amended independent claims 1, 15 and 29 call for the “threshold values” to be generated for each “inputted image data” on the fly. Furthermore, the current invention selects the “a correction coefficient” according to “a combination of” both the “outline characteristics” and the “user input value(s).” Although these patentable features are not identical, some of them may be related to now cancelled dependent claims 11, 25 and 38.

With respect to these cancelled claims, the Examiner has pointed out on pages 6, 9 and 10 in the Office Action that the Ueta et al. reference discloses a CCD signal processor 45 for performing a shading correction and a COMPAR 77 for generating edge data. According to the Examiner, the CCD signal processor 45 of the cited reference corresponds to the generation of an intensity level of the inputted data. Furthermore, the Examiner has also indicated an additional disclosure of the CCD LINE SENSOR 43 of the Ueta et al. reference in relation to the input data. The above portions of the Ueta et al. reference are irrelevant to the patentable feature of the current invention as explicitly recited in newly amended independent claims as will be described below.

In contrast to the above patentable feature of the current invention, the cited portion of the Ueta et al. reference discloses a comparison of a predetermined fixed threshold value that is inputted by the user. In other words, prior to selecting a certain correction coefficient value, the system of the Ueta et al. reference allows the user to input a user-selected comparison coefficient value T_0 and a user-selected contrast coefficient K . (lines 44 through 48, column 3). Initially, the values a , b , and d from the three consecutive CCD are calculated to generate $P=2b-(a+c)$, and the absolute value of P is compared to the user-selected comparison coefficient value T_0 . If $P < |T_0|$, then no edge contrast is performed. On the other hand, If $P =$ or $> |T_0|$, then edge contrast is performed. In both cases, the T_0 value is fixed.

Newly amended independent claims each require that “a set of threshold values” is generated “based upon an intensity level of the inputted image data” so that “a portion of the image data is an outline portion” is determined “based upon the threshold values to generate an outline characteristic of the outline portion in the image data.” In other words, the current invention requires that the threshold value should not be fixed. This flexible feature has been supported by the original disclosure of the current application at lines 22 through 31 on page 13. No new matter has been introduced by the current amendment.

For these reasons, the cited references fails to anticipate the patentable features of the current invention as explicitly recited in newly amended independent claims 1, 15 and 29. Thus, it would not have been obvious to one of ordinary in the art to provide the above discussed patentable feature of the current invention as explicitly recited in the newly amended independent claims based upon the cited prior art.

Dependent claims are also patentably distinct. Dependent claims 11, 25 and 38 have been cancelled. Other dependent claims 2 through 5, 7 through 10, 12, 13, 16 through 19, 21 through 24, 26, 27, 30 through 37, 39, 40 and 42 through 44 ultimately depend from one of newly amended independent claims 1, 15 and 29 and incorporate the patentable features of the newly amended independent claims. Therefore, the Applicant respectfully submit to the Examiner that the rejection of claims 1 through 5, 7 through 13, 15 through 19, 21 through 27, 29 through 40 and 42 through 44 under 35 U.S.C. §102(b) should be withdrawn.

The Section 103(a) Rejections

The Examiner has also rejected claims 45 through 47 under 35 U.S.C. §103(a) as allegedly being unpatentable over the Ueta et al. reference in view of the Kawamura et al. reference.

The Examiner has pointed out that every element of the above independent claims has been disclosed by a combination of the two cited references. Although the Examiner concedes that the Ueta et al. reference discloses every element except for the outline characteristic including information on vertical, horizontal, right and left edges, the Examiner has indicated that the Ueta et al. reference allegedly suggests a spatial arrangement including a direction between two elements. For the lack of the above conceded lack of the clear disclosure, the Examiner has additionally cited the Kawamura et al. reference. The Examiner has indicated with respect to FIGURE 1 that the Kawamura et al. reference discloses the spatial arrangements of the edges. Thus, the Examiner has concluded that the combined disclosures makes the subject matter of the independent claims obvious to one of ordinary skill in the art.

As discussed above in the section 102(b) rejections, newly amended independent claims 1, 15 and 29 now each explicitly recite the flexible threshold values according to the inputted image data. Neither the Ueta et al. reference nor the Kawamura et al. reference discloses, teaches or suggests the patentable features of the newly amended independent claims.

For this reason, even if the cited references are combined, the combined disclosures still fail to disclose, teach or suggest the patentable features of the current invention as explicitly recited in newly amended independent claims 1, 15 and 29. Thus, it would not have been obvious to one of ordinary skill in the art to provide the above discussed patentable feature of the current invention as explicitly recited in the newly amended independent claims based upon the cited prior art.

Dependent claims are also patentably distinct. Dependent claims 45 through 47 ultimately depend from one of newly amended independent claims 1, 15 and 29 and incorporate the patentable features of the newly amended independent claims. Therefore, the Applicant respectfully submit to the Examiner that the rejection of claims 45 through 47 under 35 U.S.C. §103(a) should be withdrawn.

Conclusion

In view of the above amendments and the foregoing remarks, Applicant respectfully submits that all of the pending claims are in condition for allowance and respectfully request a favorable Office Action so indicating.

Respectfully submitted,

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